

# Prevalence of Peripartum Hysterectomy in a Tertiary Care Centre

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## ABSTRACT

**Background:** The present study was conducted to assess prevalence of peripartum hysterectomy in tertiary care center. **Methods:** The present retrospective study was conducted in the department of gynecology & Obstetrics. Parameters such as demographic profile, clinical characteristics, operative notes for indications, intraoperative findings, duration of surgery and blood loss, anesthesia records, and postoperative events etc. and prevalence was recorded. **Results:** The most common indication was secondary postpartum hemorrhage in 16 cases, adherent placenta in 20, rupture uterus in 12 and uterine atonicity in 10 cases. The mean duration of surgery (hours) was 2.4, preoperative hemoglobin (g/dl) was 9.2, postoperative hemoglobin (g/dl) was 8.1, ICU stays (days) was 1.4, intraoperative fluid transfused (L) was 6.2 and no. of intraoperative blood transfused was 4.5. The difference was significant ( $P < 0.05$ ). Common post operative complications was bladder injury in 2, wound infection in 5, urinary infection in 3, renal failure in 1, maternal death in 4 and re- suturing in 7 patients. The difference was significant ( $P < 0.05$ ). **Conclusion:** found that the prevalence of peripartum hysterectomy was 1.7%. Most common indication was secondary postpartum hemorrhage.

**Keywords:** Peripartum hysterectomy, Postpartum hemorrhage, Urinary.

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## INTRODUCTION

Postpartum hemorrhage (PPH) is a life-threatening condition. Various drugs and surgical techniques have been developed over time, especially to preserve the uterus.<sup>[1]</sup> However, in some circumstances, an emergency peripartum hysterectomy has to be performed often as the last resort in saving a woman's life.<sup>[2]</sup> Emergency peripartum hysterectomy (EPH) is defined as hysterectomy performed at the time of child birth or within 24 hours of child birth or at any time from childbirth to discharge from the same hospitalization, is a relatively infrequent procedure in present day obstetrics. It is performed in cases of intractable obstetric hemorrhage due to uterine atony or to prevent hemorrhage from a morbidly adherent placenta or placenta previa.<sup>[3]</sup> Other indications include uterine rupture, cervical laceration, leiomyoma, postpartum uterine infection or invasive cervical cancer. Consequentially, the risk factors for EPH are similar to those that predispose to hemorrhage or abnormal placentation. It is thus an unequivocal marker of severe maternal morbidity and mortality.<sup>[4]</sup>

The incidence of EPH ranges from 0.035% to 0.54% worldwide. The incidence is high in developing countries when compared to developed nations. This could be attributed to the disparity in the accessibility and availability of various modern

obstetric services like uterine artery embolisation, family planning and antenatal care facilities.<sup>[5]</sup> The present study was conducted to assess prevalence of peripartum hysterectomy in tertiary care center.

## MATERIALS & METHODS

The present retrospective study was conducted in the department of gynecology & Obstetrics. The ethical committee approved the study. We obtained records of all women who underwent peripartum hysterectomy in last 5 years from medical record department.

Parameters such as demographic profile, clinical characteristics, operative notes for indications, intraoperative findings, duration of surgery and blood loss, anesthesia records, and postoperative events etc. was recorded. Results were tabulated and subjected to statistical analysis. P value less than 0.05 was considered significant.

## RESULTS

**Table 1: Indication of peripartum hysterectomy**

Indications	Number	P value
Rupture uterus	12	0.01
Uterine atonicity	10	
Adherent placenta	20	
Secondary postpartum hemorrhage	16	

[Table 1] shows that most common indication was secondary postpartum hemorrhage in 16 cases, adherent placenta in 20, rupture uterus in 12 and uterine atonicity in 10 cases. The difference was significant ( $P < 0.05$ ).

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**Table 2: Clinical characteristics**

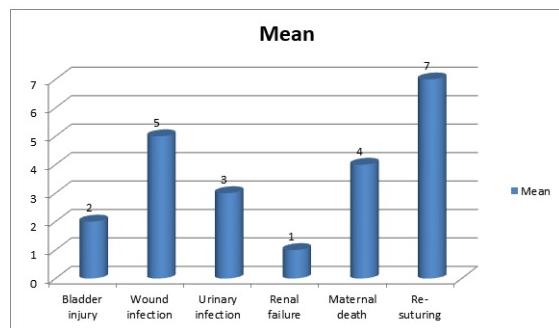
Parameters	Mean	P value
Duration of surgery (hours)	2.4	0.01
Preoperative hemoglobin (g/dl)	9.2	
Postoperative hemoglobin (g/dl)	8.1	
ICU stays (Days)	1.4	
Intraoperative fluid transfused (L)	6.2	
No. of Intraoperative blood transfused	4.5	

[Table 2 & Figure 1] shows that mean duration of surgery (hours) was 2.4, preoperative hemoglobin (g/dl) was 9.2, postoperative hemoglobin (g/dl) was 8.1, ICU stays (days) was 1.4, intraoperative fluid transfused (L) was 6.2 and no. of intraoperative blood transfused was 4.5. The difference was significant ( $P < 0.05$ ).

**Table 3: Postoperative complications**

Parameters	Mean	P value
Bladder injury	2	0.02
Wound infection	5	
Urinary infection	3	
Renal failure	1	
Maternal death	4	
Re-suturing	7	

[Table 3 & Figure 1] shows that common post-operative complications was bladder injury in 2, wound infection in 5, urinary infection in 3, renal failure in 1, maternal death in 4 and re-suturing in 7 patients. The difference was significant ( $P < 0.05$ ).

**Figure 1: Postoperative complications**

## DISCUSSION

PPH along with sepsis and hypertensive disorders of pregnancy is a major cause of maternal mortality in India. Peripartum hysterectomy is a lifesaving surgery performed on a mother with intractable obstetric hemorrhage. In active management of third stage of labor, drugs such as misoprostol and uterine artery embolization among other measures have markedly reduced maternal deaths from PPH.<sup>[6]</sup> However, describing a reduction in maternal mortality rate is just describing the tip of an iceberg. The WHO has thus emphasized on the concept of maternal near miss. Any pregnant woman who undergoes peripartum hysterectomy thus could have potentially died without timely and proper management.<sup>[7]</sup> The present study was conducted to

assess prevalence of peripartum hysterectomy in tertiary care center.

In present study we found that out of 3310 deliveries, peripartum hysterectomy was observed in 58 cases making prevalence of 1.7%. Saxena et al,<sup>[8]</sup> included all women who underwent peripartum hysterectomy in a teaching hospital. Forty women underwent peripartum hysterectomy during the study period. The incidence was 6.9/1000 deliveries. In 16 (40%) cases, peripartum hysterectomy was planned electively while emergency hysterectomy was done in 24 (60%) cases. Main indications of peripartum hysterectomies were placenta accreta (60%), atonic postpartum hemorrhage (PPH) (27.5%), and uterine rupture (7.5%). Intensive care management was required in 35% women postoperatively. The common maternal complications were febrile morbidity, bladder injury, disseminated intravascular coagulation, and wound infection. There were 4 maternal deaths following emergency peripartum hysterectomy done for atonic PPH whereas no mortality occurred in elective hysterectomy group. We found that most common indication was secondary postpartum hemorrhage in 16 cases, adherent placenta in 20, rupture uterus in 12 and uterine atonicity in 10 cases. Kastner et al,<sup>[9]</sup> found that among 16,473 deliveries in the study period, 12 emergency peripartum hysterectomies were undertaken, the incidence being 0.073%. Women were aged 20 to 40 years (mean 30.25 years). Majority (83%) were multiparous women. Atonic postpartum haemorrhage was the most common (58%) indication for hysterectomy. About 67% of hysterectomies performed were subtotal hysterectomies. One half of them had a previous caesarean section. Two patients had bilateral internal iliac artery embolization for ongoing haemorrhage. All patients required intensive care and blood transfusion. Two patients did not survive even after hysterectomy.

We found that mean duration of surgery (hours) was 2.4, preoperative hemoglobin (g/dl) was 9.2, postoperative hemoglobin (g/dl) was 8.1, ICU stays (days) was 1.4, intraoperative fluid transfused (L) was 6.2 and no. of intraoperative blood transfused was 4.5. The difference was significant ( $P < 0.05$ ).

There has been a significant fall in the maternal mortality rates across the globe due to advancements in technology, uterotronics and surgical techniques. However, the most common reason for performing an EPH is still postpartum haemorrhage in developing countries. With increasing rates of caesarean section and its associated rise in placenta previa and placenta accreta, the incidence of EPH is expected to rise world over.<sup>[10]</sup>

We found that common post operative complications was bladder injury in 2, wound infection in 5, urinary infection in 3, renal failure in 1, maternal death in 4 and re-suturing in 7 patients. Regular audits are needed to curb the caesarean section rates

and its accompanying complications. Careful antenatal assessment and early recognition of risk factors for haemorrhage should be accompanied by arrangements for adequate uterotronics and blood products for early resuscitation.<sup>[11]</sup>

Performance of EPH by an experienced surgeon is reported to significantly reduce the operating time, number of units of blood transfusion and hospital stay. An informed consent regarding the possibility of EPH and ensuring the availability of consultants while managing a high risk parturient can prevent mortality.<sup>[12]</sup> Although, EPH marks an abrupt end to the reproductive career of a woman, it is an acceptable alternative where expertise or facilities for more complex modalities of management, such as uterine artery embolization may not be available.

## CONCLUSION

Authors found that the prevalence of peripartum hysterectomy was 1.7%. Most common indication was secondary postpartum hemorrhage.

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